



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/285,772	04/05/1999	KAORU YAMAMOTO	Q53891	4120

7590 05/19/2003
SUGHRUE MION ZINN MACPEAK AND SEAS
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20037

EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
----------	--------------

2615

DATE MAILED: 05/19/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

09/285,772

Applicant(s)

YAMAMOTO ET AL.

Examiner

James A. Fletcher

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 19, 20, 27, 30, 31, 32, 37, 40, and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "unsophisticated" in claims 19 and 20 is a relative term which renders the claim indefinite. The term "unsophisticated" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "unsophisticated" does not change the scope of the claims because it has no frame of reference: "unsophisticated" with respect to what?

The term "simple" in claims 27, 30, 31, 32, 37, 40, and 41 is a relative term, which renders the claim indefinite. The term "simple" is only defined in dependent claim 32, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "simple" does not change the scope of the claims because it has no frame of reference: "simple" with respect to what?

3. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See

Art Unit: 2615

MPEP § 2172.01. The omitted structural cooperative relationships are: The claim recites the language: the one or the plurality of tracks include at least one of a first track and a second track.” This appears to mean that a single track can contain at least two tracks within it. This situation is confusing to the examiner and requires clarification.

Claim Objections

4. Claim 40 is objected to because of the following informalities: Line 12 contains the following text: “reproducing apparatus;; the information reproducing apparatus comprising:” It is the examiner’s opinion that the text should read --reproducing apparatus; the information reproducing apparatus comprising:--. Appropriate correction is required.

5. Claims 27, 33, 37, 40, 41, and 44 are objected to because of the following informalities: Each claim recites the term “substantive data.” The specification, previous claims, and some claims dependent on the objected claims recite the term “substantial data.” It is the examiner’s opinion that the recitations should be consistent, and all recite the term --substantial data--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-6, 9-16, and 19-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Endoh et al. (5,896,358).

Regarding claims 1 and 11, Endoh et al disclose an information recording medium (Col 4, line 13 "a recording medium") and signal on a carrier wave (Col 3, line 10 "transmitting means") on which are recorded substantial data and reproduce control information for reproducing the substantial data, wherein the reproduce control information comprises:

- first reproduce control information required for reproducing the substantial data in a plurality of available reproduce patterns (Col 3, lines 11-12 "first audio data including a first code information items"); and
- second reproduce control information required for reproducing the substantial data in a predetermined reproduce pattern, the predetermined reproduce pattern being one of the available reproduce patterns (Col 3, lines 14-15 "second audio data including a second code information"), and
- wherein the predetermined reproduce pattern is employed for reproducing the substantial data in two or less channels (Col 4, lines 66-67 "transmitting main signals via at least one of the front channels").

Regarding claim 2 and 12, Endoh et al disclose an information recording medium and signal on a carrier wave wherein

- the substantial data are divided into one or a plurality of tracks and are defined as one or a plurality of titles, each corresponding to a logical set comprising one or the plurality of tracks (Col 5, line 8 "providing a maximum of five transmission channels");
- the first reproduce control information is recorded on a per-title basis so as to spread over the information recording medium (Col 19, lines 10-11 "Each video title set...is made up of one or more video titles"); and
- the second reproduce control information corresponds to reproduce control information items about the tracks recorded on the information recording medium being collectively recorded in a predetermined location of a program area (Col 19, lines 32-36 "The video title set information...consists of seven tables... These seven tables are forced to align with the boundaries between logical sectors").

Regarding claims 3 - 5 and 13-15, Endoh et al disclose an information recording medium and signal on a carrier wave wherein the tracks comprise:

- tracks and first reproduce control information for use with an information reproducing apparatus to be reproduced in all the reproduce patterns (Col 5, lines 26-29 "data indicating whether the audio data items are for use in the surround mode...are written on the recording medium"); and

- tracks and second reproduce control information for use with an information reproducing apparatus to be reproduced in only a portion of the reproduce patterns (Col 5, lines 26-29 “data indicating whether the audio data items are for... special use... are written on the recording medium”).

Regarding claims 6 and 16, Endoh et al disclose an information recording medium and signal on a carrier wave wherein the second reproduce information comprises at least address information, attribute information, and reproduce times relating to the tracks (Col 15, lines 48-53 “a mandatory table, recording the size of the video manager, the start address of each piece of the information in the video manager, and the start address of and the attribute information about the video object set”).

Regarding claims 19 and 20, Endoh et al disclose an information recording medium and signal on a carrier wave wherein the second reproduce control information is utilized for an unsophisticated audio player (Col 5, lines 26-28 “data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke”).

Regarding claims 9 and 21, Endoh et al disclose an apparatus and method for reproducing an information recording medium (Col 6, line 6 “an optical disk apparatus”), wherein the information recording medium stores substantial data, first reproduce control information (Col 3, lines 11-12 “first audio data including a first code information items”), and second reproduce control information (Col 3, lines 14-15 “second audio data including a second code information”); the first reproduce control information is required for reproducing the substantial data in a plurality of available reproduce

Art Unit: 2615

patterns including a predetermined reproduce pattern (Col 3, lines 12-15 "a first code information items for determining a surround mode... and second audio data including a second code information items for determining a special-use mode"); the predetermined reproduce pattern is employed for reproducing the substantial data in two or less channels (Col 4, line 63 "providing two or more front channels"); and the second reproduce control information is required for reproducing the substantial data in the predetermined reproduce pattern (Col 5, lines 26-28 "data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke"); the information reproducing apparatus comprising:

- reading means for reading information from the information recording medium (Fig 6, item 32 and Col 12, line 8 "optical pickup"); and
- reproduce processing means capable of reproducing the substantial data in the predetermined reproduce pattern, (Col 12, line 24 - Col 13, line 17 describe the workings of the reproduce processing means) wherein
- the reproduce processing means acquires the second reproduce control information prior to any of the substantial data (Col 12, lines 61-65 "the playback data is reproduced from the specific sector by the optical head... which is outputted at the disk drive section" and Fig 46, which illustrates the relationship between header data and substantial data), stores the thus-acquired second reproduce control information into storage means (Col 12, line 66 "The reproduced data is stored in the data RAM section"), and plays back the substantial data on the basis of the second reproduce control

information (Col 5, lines 26-28 "data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke" and Abstract "the first- and second-type accompanying sounds...are reproduced selectively").

Regarding claims 10 and 22, Endoh et al disclose an information reproducing apparatus and method wherein:

- the substantial data are divided into one or a plurality of tracks and are defined as one or a plurality of titles, each corresponding to a logical set comprising one of the plurality of tracks (Col 5, line 8 "providing a maximum of five transmission channels");
- the apparatus further comprising means for specifying a track to be reproduced (Abstract "The first- and second-type accompanying sounds...are reproduced selectively"); and
- the reproduce processing means acquires information relating to the thus-specified track from the second reproduce control information (Col 5, lines 26-28 "data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke").

Regarding claims 23 and 25, Endoh et al disclose an apparatus and method for reproducing an information recording medium (Col 6, line 6 "an optical disk apparatus"), wherein the information recording medium stores substantial data, first reproduce control information (Col 3, lines 11-12 "first audio data including a first code information items"), and second reproduce control information (Col 3, lines 14-15 "second audio

Art Unit: 2615

data including a second code information"); the first reproduce control information is required for reproducing the substantial data in a plurality of available reproduce patterns including a predetermined reproduce pattern (Col 3, lines 12-15 "a first code information items for determining a surround mode...and second audio data including a second code information items for determining a special-use mode"); the predetermined reproduce pattern is employed for reproducing the substantial data in two or less channels (Col 4, line 63 "providing two or more front channels"); and the second reproduce control information is required for reproducing the substantial data in the predetermined reproduce pattern (Col 5, lines 26-28 "data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke"), comprising:

- reading first reproduce control information from the information recording medium (Col 3, lines 52-53 "sensing of the first code information item"); and
- reading the substantial data from the medium (Col 4, lines 38-39 "a method of transmitting and reproducing audio information"); and
- reproducing the substantial data on the basis of the first reproduce control information (Col 3, lines 52-57 "conversion means for, in response to the sensing of the first code information item, converting the first, second and third main audio contents into a first front left, first front center, and first front right main audio signals and the first and second sub-audio contents into a first back left and first back right surround audio signals in the surround mode").

Regarding claims 24 and 26, Endoh et al disclose an information reproducing apparatus and method wherein:

- the substantial data are divided into one or a plurality of tracks and are defined as one or a plurality of titles, each corresponding to a logical set comprising one of the plurality of tracks (Col 5, line 8 “providing a maximum of five transmission channels”);
- the apparatus further comprising means for specifying a track to be reproduced (Abstract “The first- and second-type accompanying sounds... are reproduced selectively”); and
- the reproduce processing means acquires information relating to the thus-specified track from the first reproduce control information (Col 5, lines 26-28 “data indicating whether the audio data items are for use in the surround mode or for special use, such as karaoke”).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7, 8, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endoh et al as applied to claims 1 and 11 above, and further in view of Nagasawa (5,809,201).

Art Unit: 2615

Regarding claims 7, 8, 17 and 18, although Endoh et al suggest an information recording medium and signal on a carrier wave wherein

- the program area comprises an audio zone in which the substantial data chiefly comprise audio data, and a video zone in which the substantial data chiefly comprise video data, Nagasawa teaches the use of such program areas (Col 5, lines 44-46 "It may be so arranged that the area within the optical disk is divided into a plurality of zones"); and
- the second reproduce control information is recorded at the head of the audio zone, ^{*}Nagasawa teaches the placement of the reproduce control information (Col 5, lines 48-49 "Address data and a header signal being preformatted at the head of each... information block") ^{*}Placing the audio and video signals in separate zones permits parallel reading and processing, which improves the speed at which such processing can take place. ^{*}Therefore, it would have been obvious to one of ordinary skill in the art to divide the signals into zones and provide control information in the headers.

10. Claims 27-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endoh, and further in view of Nagasawa, as analyzed and discussed with reference to claims 7 and 8 above.

Further regarding claims 32 and 35, the examiner takes official notice that Linear Pulse Code Modulation is a well known and commercially available format for storing analog signals on a digital medium. Therefore, it would have been obvious to

Art Unit: 2615

one of ordinary skill in the art at the time of the invention to use Linear Pulse Code Modulation techniques to store the audio signals.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
May 14, 2003


VINCENT BOCCIO
PRIMARY EXAMINER